

FORM PTO-1449 (Modified)			ATTY. DOCKET NO. TH1647 05 (US)	APPLICATION NUMBER			
LIST OF INFORMATION PROVIDED BY APPLICANT (Use several sheets if necessary)			APPLICANT C. L. Edwards et al.				
			FILING DATE	GROUP ART UNIT			
REFERENCE DESIGNATION			U.S. PATENT DOCUMENTS				
Examiner Initial		Document No.	Date	Patentee	Class	Subclass	Filing Date if Appropriate
<i>JW</i>	AA	3,676,523	7/11/72	Mason	260	683.15D	
<i>JW</i>	AB	3,686,351	8/22/72	Mason	260	683.15D	
<i>JW</i>	AC	3,737,475	6/5/73	Mason	260	683.15D	
<i>JW</i>	AD	3,825,615	7/23/74	Lutz	260	683.15D	
<i>JW</i>	AE	4,020,121	4/26/77	Kister et al.	260	683.15D	
<i>JW</i>	AF	4,021,447	5/3/77	Rubin et al.	260	326.8	
<i>JW</i>	AG	3,702,886	11/14/72	Argauer et al.	423	328	
<i>JW</i>	AH	3,709,979	1/9/73	Chu	423	328	
<i>JW</i>	AI	3,832,449	8/27/74	Rubin et al.			
FOREIGN PATENT DOCUMENTS							
		Document No.	Date	Country	Class	Subclass	Translation Yes No
	AL	WO 94/05761	3/17/94	World	C11D	3/10	
<i>W</i>	AM	1,429,143	3/24/78	Great Britain	C11D	10/02	
<i>W</i>	AN	WO 99/42553	8/26/99	World	C11D	3/43	
<i>W</i>	AO	0,884,298 A2	12/16/98	Europe	C07C	43/10	X
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)							
	AR	Myers, Drew, "Surfactant Science and Technology," pp. 82-85, VCH Publishers, Inc. (New York, NY, USA) 1988 (ISBN 0-89573-399-0)					
<i>W</i>	AS	K. Shinoda, "Principles of Solution and Solubility," translation in collaboration with Paul Becher, published by Mercel Dekker, Inc. 1978, pp. 292-304					
<i>W</i>	AT	Reid, V.W., G.F. Longman and E. Heinrich, "Determination of Anionic-Active Detergents by Two-Phase Titration," <u>Tensile</u> 4, 1967, pp. 292-304					
EXAMINER		<i>Jean P. Holloman</i>		DATE CONSIDERED		<i>April 16/2014</i>	

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<i>JM</i>	BA	4,482,531	11/13/84	Kuehl	423	329	
<i>JM</i>	BB	3,950,496	4/13/76	Ciric	423	328	
<i>JM</i>	BC	3,972,983	8/3/76	Ciric	423	328	
<i>JM</i>	BD	4,046,859	9/6/77	Plank et al.	423	328	
<i>JM</i>	BE	4,247,416	1/27/81	Doherty et al.	252	428	
<i>JM</i>	BF	4,086,186	4/25/78	Rubin et al.	252	430	
<i>JM</i>	BG	4,046,859	9/6/77	Plank et al.	423	328	
<i>JM</i>	BH	4,287,166	9/1/81	Dwyer et al.	423	325	
<i>JM</i>	BI	4,247,728	1/27/81	Rubin et al.	585	467	
			FOREIGN PATENT DOCUMENTS				Translation Yes      No
		Document Number	Date	Country	Class	Subclass	Translation Yes      No
<i>JM</i>	BL	06073045	3/15/94	Japan	C07D	273/08	X
<i>JM</i>	BM	03261779	11/21/91	Japan	C07D	309/24	X
<i>JM</i>	BN	JP 11-349507	12/21/99	Japan	C07C	43/11	X
<i>JM</i>	BO	100 20 899 A1	10/25/01	Germany	C07D	493/04	X
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)							
<i>No references</i>	BR	B. E. Gordon, H. Roddewig and W. T. Shebs, "A Double Label Radiotracer Approach to Detergency Studies," Journal of American Oil Chemists' Society, Vol. 44, No. 5 (1967) pp. 289-294					
<i>No references</i>	BS	W. T. Shebs and B. E. Gorden, "Improvements in Detergency Precision With Radioactive Soil," Journal of American Oil Chemists' Society, Vol. 45, No. 5 (1968) pp. 377-380					
<i>No references</i>	BT	W. T. Shebs, "Radioisotope Techniques in Detergency," Chapter 3, <u>Detergency Theory and Technology</u> , Marcel Dekker, Inc., New York (1987) pp. 125-191					
EXAMINER	<i>Jlem F. Hollan</i>		DATE CONSIDERED <i>April 18/2001</i>				

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<i>JW</i>	CA	4,495,303	1/22/85	Kuehl	502	62	
<i>JW</i>	CB	4,397,827	8/9/83	Chu	423	326	
<i>JW</i>	CC	4,640,829	2/3/87	Rubin	423	328	
<i>JW</i>	CD	4,568,654	2/4/86	Valyocsik	502	62	
<i>JW</i>	CE	4,698,217	10/6/87	Valyocsik	423	328C	
<i>JW</i>	CF	4,647,442	3/3/87	Derouane et al.	423	306	
<i>JW</i>	CG	4,619,818	10/28/86	Derogane et al.	423	306	
<i>JW</i>	CH	4,954,325	9/4/90	Rubin et al.	423	328	
<i>JW</i>	CI	5,236,575	8/17/93	Bennett et al.	208	46	
FOREIGN PATENT DOCUMENTS							
		Document No.	Date	Country	Class	Subclass	Translation Yes N
	CL						
	CM						
	CN						
	CO						
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)							
<i>JW</i>	CR	Roger Hunter et al., "Allylation Using Allylborates," TETRAHEDRON, Vol. 50, No. 3, 1994, pp. 871-888					
<i>JW</i>	CS	Birgit Bartels et al., "A Selectivity of Activated Ketal Reduction With Borane Dimethyl Sulfide," JOURNAL OF ORGANIC CHEMISTRY, Vol. 58, No. 24, 1993, pp. 6756-6765					
<i>JW</i> <i>W. H. Miller</i>	CT	T. Hosokawa et al., "Palladium (II)-Catalyzed Acetalization of Terminal Olefins Bearing Electron-Withdrawing Substituents With Optically Active Diols," JOURNAL OF ORGANIC CHEMISTRY, Vol. 52, 1987, pp. 1958-1764					
EXAMINER	<i>Jean F. Collans</i>		DATE CONSIDERED			<i>April 18/2004</i>	

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<i>JW</i>	DA	3,308,069	3/7/67	Wadlinger et al.	252	455	
	DB	Re. 28,341	2/18/75	Wadlinger, et al.	208	120	
	DC	3,058,805	10/16/62	Weber	23	113	
	DD	3,130,007	4/21/64	Breck	23	113	
	DE	3,996,337	12/7/76	Stabenow et al.	423	328	
	DF	4,440,871	4/3/84	Lok et al.	502	214	
	DG	5,059,567	10/22/91	Linsten et al.	502	64	
<i>JW</i>	DH	3,462,525	8/19/69	Levinsky	424	56	
	DI	3,428,654	2/18/69	Rubinfeld et al.	260	327	
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes      No
	DL						
	DM						
	DN						
	DO						
OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)							
<i>JW</i>	DR	F. Wang et al., Synlett, (1998) pp. 245-245					
<i>JW</i>	DS	A. A. Volkov et al., Dokl. Chem. 283, (1985), pp. 246-248					
	DT	<u>International Search Report of 5 July 2002</u>					
EXAMINER	<i>John Flanagan</i>		DATE CONSIDERED <i>April 18, 2004</i>				

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<i>JW</i>	EA	3,420,875	1/7/69	Di Salvo et al.	260	513	
	EB	3,506,580	4/14/70	Rubinfeld et al.	252	138	
	EC	3,579,537	5/18/71	Rubinfeld et al.	260	327	
	ED	3,524,864	8/18/70	Rubinfeld et al.	260	327	
	EE	5,057,627	10/15/91	Edwards	568	618	
	EF	6,087,311	7/11/00	Van Dijk	510	294	
	EG	6,083,893	7/4/00	Zint et al.	510	221	
<i>JW</i>	EH	6,159,920	12/12/00	Ridyard	510	324	
	EI	6,153,574	11/28/00	Janssen	510	224	

FOREIGN PATENT DOCUMENTS						Translation		
		Document Number	Date	Country	Class	Subclass	Yes	No
	EL							
	EM							
	EN							
	EO							

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)		
<i>JW</i> Anionic Surfactants, Volume 7, Part I, edited by Warner M. Linfield, 1976 by Marcel Dekker, Inc.		
	ER	
	ES	
	ET	

EXAMINER *OPP J. L. Williams* DATE CONSIDERED *April 18, 2021*

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JM	FA	2,778,855	1/22/57	Shokal et al.	260	613	
	FB	4,503,275	3/5/85	Harris et al.	568	866	
	FC	4,317,938	3/2/82	Lutz	568	619	
	FD	4,721,816	1/26/88	Edwards	568	618	
	FE	4,721,817	1/26/88	Edwards	518	618	
	FF	2,808,442	10/1/57	Smith et al.	260	611	
	FG	5,912,408	6/15/99	Trinh et al.	8	142	
CH	FH	4,544,512	10/1985	Hozumi et al.	558	169	
	FI	Ser. No. 10/025,080	12/19/01	Edwards et al.			

FOREIGN PATENT DOCUMENTS						Translation		
		Document No.	Date	Country	Class	Subclass	Yes	No
	FL							
	FM							
	FN							
	FO							

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	FR							
	FS							
	FT							

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